DAILY FIELD ACTIVITY REPORT

PROJECT NAME: Pre-Remedial Design Investigation and Baseline Sampling, Portland Harbor Superfund Site

DATE: May 12, 2018	**WEATHER:** Overcast to sunny, High of ~78 degrees F

Personnel and Visitors Onsite:
Research vessel Cayuse - CDM Smith: Andy Greazel; AECOM: Bruce Cassen; Geosyntec: Erin Dunbar; Gravity: Peter Jenkins and Jeff Schul
Research vessel Tieton - CDM Smith: Mary Lou Fox; AECOM: Nicky Moody; Geosyntec: Luke Smith; Gravity Marine: Mike Duffield, Ed Sloan

Planned Activity:

- Cayuse - Collect surface sediment samples at sediment management area sample (SMA) locations near River Mile 4.5
- Tieton - SMA surface sediment sampling at SMA locations between RM 6 and 7W and RM 10 and 11 (both sides of the river)

Activity Completed:
A tailgate safety meeting was led by AECOM. Topics discussed included lessons learned, wakes, awareness of potentially impaired boat captains, hydration and upcoming elevated temperatures, dock safety, personal decontamination and contaminant exposure prevention.

Andy Greazel performed oversight of SMA surface sediment sampling on the Cayuse vessel from 08:00 to 18:00. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- GPS position checks were performed at the beginning and end of the day at the PH-2 pile at the Fred Devine property. GPS coordinates were within 1 meter of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from six targeted SMA locations between RM 6 and 7W and RM 10 and 11 (both sides of the river) as summarized below. Activities included decontamination of sampling equipment using Alconox and deionized/distilled water and housekeeping of the sampling area.
- A rinsate sample was collected at the end of the day.

Mary Lou Fox performed oversight of surface sediment sampling at sediment management area locations from 08:00 to 18:30 on board the Tieton. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- 3-point composite surface sediment samples were collected from 6 SMA locations near RM 4.5. Activities included decontamination of sampling equipment using Alconox and deionized/distilled water and housekeeping of the sampling area.
    - An EPA “thin” sample to be archived that is corresponding to a Pre-RD group “thick’ sample was collected from SMA location S053.
    - One additional location was attempted but not completed (SG-B078). The recovered sediment will be archived. No sediment was recovered in the other six grabs at this location.
- GPS position checks at PH-2 indicated that the vessel GPS was reading within 1 meter of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.

Status of Schedule & Priority Work:

- The SMA sampling will continue into next week generally progressing up the river and potentially returning to areas previously skipped.
- Locations on private property are being skipped until access agreements are obtained.
- Sample locations in areas of known/encountered heavy sheen contamination are planned to be returned to with support from NRC Environmental Services to contain sheen during sampling.
- Sampling is taking more time than initially projected.

Issues/Concerns/Resolutions (include work performed that was not planned or anticipated):

- A sample could not be collected at location SG-S114 because debris (e.g., rocks, logs) were preventing the power grab sampler from closing completely. When the jaws did not close completely, sediment would discharge through the bottom of the sampler.
- A sample was collected from the first 3 attempts at SG-S115, which were within the 25-foot radius; all 3 attempts returned less than 20 cm of sediment and the sample will be archived. The Pre-RD Group collected the sample after the first 3 attempts and were notified that they are not completing the work in accordance with the FSP. The

Pre-RD Group returned to the location later to try 3 more attempts within the 50 ft radius. Attempts 4 through 6 (from the 50 ft radius) did not return sediment because of debris stuck in the jaws allowed sediment to discharge through the bottom of the sampler. The Pre-RD Group did not state that they planned on identifying an alternate SMA sample location.

- The EPA archived sample and Pre-RD Group sample composites at SMA location S053 were made by combining one half of each grab sample bowl in the composite. Each grab sample bowl was homogenized prior to splitting in half. The EPA sample was collected from grabs 1, 3, and 4 and the Pre-RD Group sample was collected from grabs 3,4, and 6. The EPA "thin" sample is being archived. These samples were collected at 10:35 and 10:40. The grab bowls of sediment were set out on the work table uncovered between grabs and approximately 40 minutes passed between collection of the first grab bowl and the last grab bowl. The grab samples for all subsequent samples collected with the Tieton were covered with aluminum foil and the early grabs were stored on ice in a cooler until the last grab was collected and the sample was composited.
- One location was attempted, but not completed (SG-S078). Seven grabs (4 in the 25-foot radius and 3 in the 50-foot radius) were performed; sediment was only recovered from grab 4 with a recovery of 23 cm with cobbles and rocks, often caught in the sampler jaws, being recovered in the other 6 attempts.
- All sample bowls on the Cayuse were covered with foil but took more than 30 minutes from the first to the last sample bowl to collect and process.

Samples Collected, Measurements Made, Photographs: (List Locations, Matrix & Sample type):
The following samples were collected by the Cayuse:

- PDI-SG-S124 - Within 50 ft radius, gray to dark gray silt
- PDI-SG-S124-Archive (2-bowl method) - Within 50 ft radius, gray to dark gray silt
- PDI-SG-S122 - Within 50 ft radius, very dark to dark green and gray silty sand
- PDI-SG-S115-Archive - Within 25 ft radius, black sand with trace silt and clay
- PDI-SG-S262 - Within 50 ft radius, very dark grayish brown silt
- PDI-SG-S261 - Within 50 ft radius, dark gray silt
- PDI-SG-S259 - Within 25 ft radius, very dark grayish brown silt

On the Tieton, sediment management area sediment samples were collected between near RM 4.5 in the eastern portion of the navigation channel and from two locations more centrally located within the river:

- PDI-SG-S053 – Within 25 ft radius, silt to silty sand
- PDI-SG-S065 – Within 25 ft radius, dark brown to very dark gray silt
- PDI-SG-S070 – Within 25 ft radius, dark brown to very dark gray silt
- PDI-SG-S074 – Within 50 ft radius dark brown to very dark gray silt
- PDI-SG-S096 – Within 25 ft radius, dark brown/gray silt
- PDI-SG-S098 – Within 25 ft radius, dark brown/gray silt to sandy silt

Note: Sediment descriptions are simplified, but AECOM/Geosyntec documented using USCS descriptions.

Photographs of work were provided to EPA via email. Additional photos were taken and archived with a description included in the photolog Excel spreadsheet, which are maintained electronically in the ProjectWise project folder.

Borings Completed (Include total footage drilled for each boring):
None

Wastes Generated and How Handled:

- Excess sediment and debris in the power grab sampler and in the sampling bowls was rinsed back into the river per the FSP. No major sheen was observed.
- Disposable gloves, paper towels, and other general trash was containerized in a trash bag and removed daily for disposal to a municipal waste management dumpster.

Health and Safety Issues, Equipment Needs, Staffing:
None

Signature: Andy Greazel, Mary Lou Fox **DATE** May 12, 2018